
* INDIANA SINCLAIR-TIMEX NEWSLETTER *

Nov-Dec 1990

Editor-Frank Davis
Assist - M. Felerski

This issue....

Next meetings -- Dec, Jan and February
(Club Swapfest in January!)

Wanted or to Sell Ads

Z88 Dealer Information-Macro Systems

ISTUG PRESENTS NEWS YOU CAN USE by Mike Felerski

Tasman Software Lives! by Mike Felerski

A Pound Is A Pound... by Mike Felerski

Helpful Hints When Purchasing Abroad by Mike Felerski

Perfection and Perfection Plus by Digital Precision -

The QL news scoop of the year!

An Easy Wordsearch Program (2068) by Basil Wentworth

Mini Mechanical Affinity Catalog of Paul Holmgren and Frank
Davis for Sinclair Computers

I.S.T.U.G. MEETING

No meeting for December, as has been customary.

The January meeting will be on January 26th, 1:30 PM at the
Eagledale Public Library. For those who need directions call
Paul Holmgren at 317-291-6002 or Frank Davis at 317-473-8031.
Besides having our first regular meeting of the year, the second
part of the meeting will consist of a swapmeet. This means bring
any hardware or software that you wish to sell, swap or donate
to another user. If you have nothing to get rid of..then come to
pick up something new or used from other members.

The February meeting will be held at the Eagledale Public
library at 1:30 PM on February 23rd. See you there!
Paul and Frank will discuss their journey North to Toronto and a
visit to some members of the Sinclair Club there.

Anyone who has not paid up their dues and has had the last
two issues of the newsletter marked as past due has either been
dropped from the mailing list as of this newsletter, or the last
issue. Anyone renewing or subscribing for the first time, please
make the check out to Frank Davis, as I handle the funds for the
newsletter and tables for shows, etc. When the check is made out
to ISTUG (as we do not have a separate club account) I have had
some hassle from clerks when cashing them at the local bank.

NOTICE !

CONTRARY TO ANY RUMOURS IN ANY OTHER NEWSLETTER, THE
INDIANA GROUP HAS NO PLANS WHATSOEVER OF HAVING A SINCLAIR
COMPUTER SHOW IN 1991. THIS IS FALSE INFORMATION. AT NO TIME
HAVE WE STATED THAT WE WOULD. At the show in 1990 at Milwaukee,
Paul Holmgren and Frank Davis stated that we would assist any
other Midwestern group to put on a show, but that we do not
ourselves have the time. The offer still stands.

WANTED OR FOR SALE

- 1) Programs for the TS100, TS1500 and TS2068, formerly offered by Games To Learn By, new or demo only. Price is \$5 + .50 for shipping and handling. Send S.A.E. for list to Mark Yost, P.O. Box 187, Canton, CT 06019 or call 203-693-6511.
- 2) Wanted, customers needing repairs or mods to their Sinclairs! Business phone number as of 1991 is 417-469-4571 as the business has moved back to Cabool and left St. Louis. Dan Elliott, Rt 1, Box 117, Cabool, MO 65689.
- 3) UPDATE COMPUTER SYSTEMS, large quarterly magazine supporting the TS2068, Spectrum, QL and Z88. Sample at first class mail is \$4.95 (counts toward subscription price if you decide to subscribe) or \$18.00 per year to: UPDATE COMPUTER SYSTEMS, P.O. BOX 1095, PERU, IN 46970. NO PRICE INCREASE IN 1991.
- 4) Jerry Wheeler of 320 Elder St., Portland, IN 47371, has a TS2068, TS2020, TS2040, programs, etc. for sale. All working fine.
- 5) For Sale for QL: Integrated Accounts (3 mdv_carts) for \$40, Nucleon (2 mdv_carts) for \$15, Speedscreen ROM (1 mdv_cart) for \$30. Al Feng, 15 Wake Robin Crt., Woodridge, IL 60517. 708-971-0495.
- 6) For Sale: TS1500, TS2040, 3 rolls 2040 paper, software and books. \$140 or best offer to Brian Fouts, 211 Emerson Dr., Seymour, IN 47274 or phone 812-522-8987.
- 7) For Sale: A & J 2000 Stringy Floppy for the TS2068, with MSCRIPT on cartridge, plus 3 blank cartridge wafers for \$65.00 which includes postage and handling. Frank Davis, 513 E. Main, Peru, IN 46970 or phone 317-473-8031.

MACro Systems "Personal Assistant"

2 pound computer Special Prices:

System size:	Regular Price:	Special Price:
32K	449.00	325.00
128K	549.00	375.00
160K	559.00	395.00
544K	889.00	544.00
640K	989.00	640.00
1056K	1045.00	775.00
2080K	1539.00	1225.00

Accessories:

Leather Case with retractable handles and MACro Power battery palm rest 250.00
(2-6 months on disposable alkaline batteries)

Leather case with fixed handles and MACro Power battery palm rest 189.00
(2-6 months on disposable alkaline batteries)

Rechargeable Battery Pack built into the Leather palm rest (2 weeks use before needing a 3 hour charge)
add to the above prices: 85.00

Cartridges:

RAM	75.00
128K	109.00
256K	149.00
384K	199.00
512K	249.00
1024K	495.00

EPROM Cartridges Coming 1st Quarter of 1991:

Larger	192.00
256K	149.00
512K	249.00
1024K	495.00

Compressed Scriptures and other books soon available on ROM cartridges.



1207 South State Street • Salt Lake City, Utah 84111
801/575-6855 • FAX 801/536-6650 • TOLL FREE 800/397-0855

This is the Cambridge 288!

ISTUG PRESENTS NEWS YOU CAN USE

The PLUS 'D' Disk Drive Interface

For the Sinclair Spectrum or Spectrum
Emulated TS2068 with Buss Adaptor

BY MIKE FELEBERT

Compatibility is a wonderful thing. We tend to purchase disk interfaces based on performance, but also because our friends have or use. Quite a bit of software is coming out of Great Britain as Spectrum Plus 3 or Plus 'D' compatible. The Spectrum Plus 3 is the Spectrum computer which has a built in 3 inch disk drive system and DOS. But for those with 48K, +128K, +2 and +2A Spectrum (or Spectrum emulated TS2068) computers, there is the Plus 'D' disk interface.

The Plus 'D' disk I/F is currently available from Datel Electronics, and their latest ad appears in the October issue of Sinclair User magazine. Here are the Plus 'D' system features:

The interface includes a connecting cable for the I/O port on the back of the Spectrum (NOTE: THIS IS A SPECTRUM BUSS PRODUCT TO MY KNOWLEDGE IT WILL NOT WORK OFF OF THE BACK OF THE TS2068 BUSS. THEREFORE YOU MUST USE THIS PRODUCT WITH A "TWISTER" BOARD).

The system works with 80 track Double Sided Double Density 3 1/2 inch diskettes. It stores almost 800K of data per disk (i.e. up to 16 full size NMI programs per disk).

And of course, a "Snap Shot" (NMI) button is provided to save those un-breakable programs and games.

Plus 'D' will work in 48K (TS2068) or 128K (+128K, +2, +2A) modes.

A "Screen Dump" feature allows the user to print out any screen to an Epson compatible printer.

The Plus 'D' system comes packaged in two ways: With a DSDD 3.5" disk drive for £129.99, or without the drive (it works with 40 or 80 track 5.25" or 3.5" drives) for £59.99.

DATEL ELECTRONICS LTD.
GOVAN ROAD
FENTON INDUSTRIAL ESTATE
FENTON, STOKE-ON-TRENT ST4 2RS
ENGLAND

CREDIT CARD ORDERS (VISA/ACCESS)
CALL 0782-744707 (24 HRS)

Make sure to ask for their colour catalogue and tell them where you heard about the product...

INDIANA SINCLAIR TIMEX USERS GROUP

TASMAN SOFTWARE LIVES!

Hello, Hello, What's all dis about here?? That's right Bruno, Tasman Software Ltd. is still producing and selling programs for the Sinclair computers. Here is a list of what is being offered:

	48K	128K	+3 (Disk)
TASCALC THE SPREADSHEET	N/A	X	X
TASPRINT THE STYLE WRITER	X	X	X
TAS-SIGN THE SIGN MAKER	N/A	X	X
MASTERFILE PLUS THREE THE DATABASE	N/A	N/A	X
TAS-DIARY PLUS THREE THE ELECTRONIC DIARY	N/A	N/A	X
TASMAN PARALLEL PRINTER INTERFACE	X	X	N/APPLIC.
TASWORD THE WORD PROCESSOR	X	X	X

ALL OF THE +3 VERSIONS WORK FROM DISK. AN OPTIONAL SPELL CHECKER IS AVAILABLE FOR TASWORD +3. 128K VERSIONS REQUIRE A SPECTRUM +128K, +2 OR +2A. 48K VERSIONS WILL WORK WITH SPECTRUM EMULATED TS2068S. VISA/ACCESS ACCEPTED. PHONE ORDERS 0532 438301. OR WRITE THEM AT THE FOLLOWING ADDRESS (LEFT):

TASMAN SOFTWARE, LTD.
DEPT SU
SPRINGFIELD HOUSE
HYDE TERRACE
LEEDS LS2 9LN

Make sure to ask for their FREE brochure and specify Spectrum 48K/128K or +3

A POUND IS A POUND THE WORLD AROUND? (OR IS IT?)

BY: MIKE FELERSKI

Timex/Sinclair and especially Spectrum emulated TS2068 owners are well aware that the single greatest source for software and hardware is Great Britain. In case you have not kept up with the currency markets, then you are in for a small shock. As of the week of 20-July-1990, the British Pound (£) was worth \$1.55. But as of the first week of November of 1990, the Pound had reached \$1.97, a 27% increase!

What kind of impact does this have on the North American Sinclair owner? Plenty! Let's look at the change in cost of the same items purchased from Great Britain in July 1990 and November 1990. For instance, a £30 Video Digitizer cost \$46.50 in July, but in November costs \$59. An arcade game for the Spectrum costing £5.99 or \$9.28 in July went up to \$11.80. Now let's look at some of the author's own "Wish List" items from Great Britain and their respective cost increase due to the strong Pound and the dropping Dollar (see insert).

Mike's Great British "Wish List"

ITEM:	Was:	Now:
Genie Disassemb.	\$10.77	\$13.69
Batman (game)	11.24	14.28
Datel Lightpen	27.78	31.42
Plus 'D' Disk I/F	92.98	118.18

HELPFULL HINTS WHEN PURCHASING ABROAD

There is no need to shy away from purchasing hardware and software products from Great Britain. Here are just a few helpful hints to make mail ordering from England a little easier:

- o Pick up a copy of Sinclair User magazine (available from Curry Computer, PO Box 5607, Glendale, AZ 85312-5607). The best sources are from companies who have large ads and advertise on a monthly basis.
- o Look for a company who accepts Visa/Access or Mastercard/Barclaycard. This takes care of the whole exchange rate business, and the companies usually prefer it (and it speeds up the order).
- o Avoid having to send Cashier's Checks or Bank Notes, even if the checks or notes are for British £s. It works in North America, but fluctuating currency markets and other nasties make it a method of payment to avoid.
- o When sending a computer to England for repair and paying by credit card, make sure to state the highest price (in £s) you are willing to pay for the repair. Make sure to tell the company to return the unit if the cost will exceed the amount specified.

This is to avoid paying an amount close to or equal to the cost of a brand new unit. Some repair companies even offer Reconditioned units at substantial savings.

- o In your "Order" letter, ask if the warranty is extended to compensate for the extended shipping/mailling time.
- o Finally, make sure you know what you are ordering. It costs a lot more and takes a lot more work to return something if it is not what you wanted, even if the company you are dealing with has a liberal return policy.

PERFECTION PLUS



Not just a word-processor - this one is THE word processor. From the same inspired team who brought you classics like LIGHTNING SPECIAL EDITION and PC CONQUEROR Digital Precision presents a product that will revolutionise the way you use your QL. Let us tell you how PERFECTION will do this. Several hundred thousand QL users have grown familiar with the free word processor that was bundled with the QL. On the plus side its use could be mastered in a few minutes thanks to its simple menu system, and it is reasonably WYSIWYG (What you see is what you get) in appearance. On the minus side, it is very slow, sometimes idiosyncratic (in what it prevents you from doing or the roundabout way in which it forces you to go about things that should have been straightforward) and very many commands that we think should have been provided with it simply weren't. Valiant attempts to accelerate it by "patching" it have achieved only a 20% speedup.

There is, however, no getting away from the fact that the majority of QL owners still use Quill as their main program. They have grown used to the user interface of the bundled programs, and are reluctant to invest time in learning some totally incompatible system, whatever its claimed advantages might be. So - using their ingenuity, for QL people are an ingenious tribe - users have put up with the inadequacies and slowness, and enjoyed Quill's friendliness.

You are probably just such a QL user yourself. Now here is a product CREATED JUST FOR YOU. A word processor that you can master in just a couple of minutes. A word processor whose user interface uses precisely those keys that you would expect it - from intuition or experience - to use. A word processor that is menu-driven (multiple page menus) so there is absolutely no need for you to remember anything or ever refer to the manual: the menu is on the screen all the time. A word processor that is intuitively obvious to operate: even more obvious than was the bundled one. If you have become at all used to the F3 interface, you will love this enhancement! A word processor that is designed for Absolute Beginners and Advanced Users, for Complete Wallies and for Albert Einsteins alike. A word processor that is delightful to use for letters and documents of but a few pages as well as for articles, journals, magazines, books, theses or manuscripts hundreds of pages long. A word processor that can unleash the power of your printer, whatever its make, and squeeze the very best from it. A word processor with a very flexible user-configurable Printer driver: one, however, that you should never have need to configure(!), as it works as shipped with Epson-compatibles and most non-compatibles, and if you have an esoteric printer it can utilise your existing configured Quill printer data file, automatically if you want it to. With this word processor you do not have to buy any extra printer drivers - you get everything you need right from the start.

A word processor with full on-screen indication of character mode - bold (i.e. emphasised) appears bold on screen, underline appears underlined, italics appear in italics, superscript and subscript appear superscripted and subscripted.... Other special type modes - dependent on the capabilities of your printer - like switching fonts, Pitches, MUQ/draft mode, proportional, double-strike, or anything else you choose - are indicated on screen by variations in ink/strip colour combinations. Just as the most advanced PC word processors do, you can even make up your own attributes to be displayed on-screen in a particular ink/strip. Combinations of attributes are permitted - the display copies fine. Never before have things been so clear and simple....

do all this is remarkable. That it manages to do it at all is fast would be amazing. But the truth is that PERFECTION is by far the fastest word processor for the QL, being DOZENS of times faster than Quill on many operations (a minute of five times faster than it on everything), and - yes - many times the speed of our own beloved

and excellent Editor, and far ahead of all the others. This started work on PERFECTION, it would have seemed impossible to us as well! But a remarkable bit of software technology has enabled us to achieve this incredible acceleration. Of course you don't need to know or understand how we have accomplished all this in order to enjoy to the full the benefits of PERFECTION speed. If you want to know anyway look at the technical section later on. If you already use Quill or ANY OTHER QL WORD-PROCESSOR you will be overjoyed to know that PERFECTION can load your existing saved files (.doc or .lis or ASCII) directly, with no conversion process required. This - together with the automatic reading of existing printer driver data - takes all the trauma out of the move to an exciting new system! And PERFECTION files are usable with PC/SI/Amiga word processors too.

PERFECTION comes with a multi-function configurator that allows you - if you want - to tailor-make a version specific to your tastes. Practically everything that is settable at run-time is also pre-configurable, making PERFECTION comfortable to operate. As you become more familiar with PERFECTION and no longer need the menu options to be visible all the time, you can toggle the menu off, freeing all the screen for your document. You can configure PERFECTION so that on startup the menu is either visible or not. As you become even more familiar with PERFECTION, you can opt to bypass the menu system entirely and use alternative direct keypress commands to access PERFECTION's power even more rapidly.

PERFECTION natively multitasks (of course) which means that without any other tools you can run multiple copies of it simultaneously as well as run it at the same time as other pieces of software. Even if you choose to run only one copy of the program, you still have the option to look at more than one part of the document at the same time. You can take a "snapshot" of a totally different area of the document. Ideal for indexing or cross-referencing. You can set up macros so that making a glossary is easy. Also you can have any number of blocks - not just one - defined in the document. You can undo/edit attribute changes with a single keypress - there's no need to laboriously "paint" over areas or navigate to the start and end of a highlighted area in order to adjust the attribute! Being able to cope with human error is an important part of PERFECTION philosophy. For example, not only is there an Undo option, but you can also ESCAPE from any command. When you have right justification on PERFECTION will add pseudo-spaces to pad out the line. Pseudo-spaces look like spaces and print like spaces but when you left justify they are removed while real spaces - the ones you have entered (via the SPACE bar or TAB) are not. This means if you accidentally right-justify tabular or columnar data a simple left-justify will set it back to its exact original state. Most other word processors do not distinguish between spaces you have entered and spaces they have inserted, and hence cannot auto-recover.

Many users need the use (sic) of a spelling checker with their word processor. Adequate spelling checkers already exist for the QL, and for users who either do not want a spelling checker, or who do not want one as yet, or who already have one and are on a tight budget we supply a version of PERFECTION without any built-in checker. But to get the best out of PERFECTION, we also supply it bundled with a dedicated Spelling checker of unsurpassed speed. There are even two levels of dictionary supplied (you get both) - the larger one is 225,000 words (no more hassle of having a checker which doesn't know the words you use; this dictionary is about 400% larger than its nearest competitor) and a compact one; use the latter if you are short of memory or when your document is really huge. You can add new words to the dictionary as well as create new dictionaries. With either dictionary PERFECTION PLUS one checks as you type, or checks saved files, or - BEST OF ALL - spell-checks interactively from any one point in the document to another.

If you already have our Editor Special Edition and use it for documents database work or programming you will find PERFECTION a wonderful tool treat. PERFECTION's WYSIWYG behaviour, greatly enhanced document facilities (telling you everything status line, available word/line/character counts, regular and forced page breaks, headers and footers), menu-driven options, and VERY MUCH

GREATER SPEED make it an ideal upgrade. There are hundreds of detailed changes - to give but one: paragraphs do not need to have a blank line between them in order to distinguish them any more). There remains an area, however, where **Editor Special Edition** remains supreme - the editing of "non-printable" data to 255. So if you are a technical or semi-technical user and do not have either **Editor Special Edition** or **PERFECTION**, your best buy is the two programs together (they can interact, coexist, work simultaneously and have fully-compatible file formats). You will then get **Editor Special Edition** at **HALF PRICE** (Special Offer - limited duration).

The characteristics of a good database are its ability to Store, Retrieve and Manipulate information rapidly. By this criterion, this word processor makes an ideal database system too, as it is blindly fast and flexible. Forward and backward 'Search' takes at most a couple of seconds, even when you have a document that fills an 80K floppied system to the brim. Cursor navigation is also unbelievably fast and smooth with an accelerating rate of scrolling if you indicate impatience. And there are macros, programmability and more for the more advanced user. If you have been unhappy with the speed or complexity of non-programmability of your existing database, **PERFECTION** will solve your problems. **PERFECTION** can even access your existing Archive export files. And if you want full desktop publishing capabilities (the use of fonts that your printer does not possess, and graphics) interlinking **PERFECTION** with Professional Publisher is a doddle. Use **PERFECTION** for creating, editing and manipulating, and pour the result into Pro Publisher.

But first and foremost **PERFECTION** is a user-friendly, familiar user-interface, stand-alone WISIWYG dual-control (menus or direct commands) word processor of enormous power and blistering speed, which (for the first time) makes output to printers hassle-free. There is nothing else like it or even remotely as good as it on the UK or on anything else. **PERFECTION** is our best yet. **PERFECTION** is for you whether you hate your existing word processor are indifferent to it or love it. **PERFECTION** will let you forget about all the technology and concentrate only on the writing.

PERFECTION costs just £79.95 including integrated printer drivers, ancillary programs and Jargon-free, friendly but to-the-point documentation (that you will probably never need to read through!) **PERFECTION PLUS** comprises **PERFECTION** plus the dedicated Spelling checker with dictionaries and costs just £119.95.

TECHNICAL INFORMATION ON PERFECTION

You don't actually need to read or understand this. **PERFECTION** sets its superb speed from two sources. Firstly, **PERFECTION** - unlike virtually any other word processor - is written entirely in 100% hand-written machine code. This gives us a considerable speed advantage over compiled alternatives. Had we written **PERFECTION** in a high level language it would have been 4 times slower, 6 times bulkier and taken us a great deal less time to produce. You reap all the benefits of our hard work. The other source is design. There are two formats for internal data storage for character handling programs. Many store data serially in a long stream of characters. Ones like **Editor** store data as lines scattered through RAM with a table of pointers to the lines - a far more advanced method. The first format has the advantage that it is cheap to program - the user pays the cost in terms of performance with sluggish block-defining/moving, navigation and insertion. The second format has advantages including instant random access to any line and quick insertions and deletions - the disadvantages may include heap fragmentation and that will result from repeated grabbing of small chunks of space (garbage collection may be required periodically if space is short). Both formats share the disadvantage that 'global' changes made to a part of the document - say a switch to bold at the top - will take a long time to filter down through the system to become visible on-screen at lines at the bottom. **PERFECTION** uses a variant of the second format that does not have its disadvantages. Data is stored in RAM in optimally-sized chunks - a chunk being roughly the size of several screens. Each

chunk has a control information area within it about the number of lines etc within it, the display status at the start of it (say bold on, italics/underline etc off). Whenever you are editing, the relevant chunk(s) are instantly loaded into a large work area that has slack space at both top and bottom. That means that you can add or delete a great amount of data instantly without **PERFECTION** having to bother about updating anything but the work area. Only when you move over the edge of the work area will **PERFECTION** need to housekeep outside the work area: the housekeeping itself is then very fast, as only control information areas need to be updated. There is no need for a general scan through all following text. There are many more speed and power advantages to our system. There is one big disadvantage - it is an absolute nightmare to design and implement! Fortunately for you you don't have to know anything about it - it just works like clockwork, automatically and behind the scenes.

Other elements of **PERFECTION** design to enhance performance include lazy screen (when you keep a key pressed in order to get somewhere, we stop updating the whole screen and instead just scroll the line your cursor is on) and lazy attributes (where in a huge document of hundreds of pages you do a long jump - say from near the top to near the bottom, in one go, and we have not yet resolved the attribute status (say underline on) of the area you want to get to, we don't hold up the display for even one hundredth of a second while we are computing attributes, but display the new area immediately without any pause - the attributes will catch up a second later, you will only see this if your document is very very big and you navigate in huge leaps). Also there is a garbage job running all the time in the background, doing whatever internal tidying up and optimising is needed when you are not doing anything (with **PERFECTION**'s speed, even if you are typing at 200 wpm the program is sitting twiddling its thumbs for 90% of the time as it awaits input). Consequently **PERFECTION**'s internal tables are always in a PERFECT state. Both lazy screen and cursor acceleration are user-configurable, incidentally.

There are dozens of other more localised ways in which **PERFECTION** performance is obtained. For example, **PERFECTION** has built-in knowledge of statistical distribution of occurrence frequencies for the various alphabetic characters in English and other European languages. It uses this data as follows: if you ask **PERFECTION** to search for the word 'praxis' in your document, we won't look for the 'p' first. Instead, we automatically look for an 'x' (less occurrences of 'x' and having found 'x', then reolve whether it is embedded within an occurrence of 'praxis' (if not, we search for another 'x'). Obvious? We thought so. But no one else appears to be using this excellent trick. Or dozens of other tricks that we'd prefer to keep to ourselves... For those with advanced needs **PERFECTION** features include full programmability - more than just macros - with the ability to save and re-execute programs. There are over a hundred commands. You will be relieved to note that **PERFECTION**'s file format is very clean, containing one short header (giving the margin/TAB etc data for that document) and then exactly what you typed in (no mass of pointers or counters). Changes of attribute (bold, NLO, underline etc) that you have opted for are stored as control characters (we document the structure) in the appropriate places in the file - note that while the control characters themselves are invisible when you are viewing the file, you can edit/delete them (search for the next or previous bold text, say) and even program the access to them (swap all bold for double-strike plus underline)... You can even opt to Export so the header is suppressed... to enable its direct use as a programming or technical front end, or to allow its output to be read in by other word processors (OL, PC or whatever). The net result of all this is that in performance, **PERFECTION** running on a QL will beat most word processors even running on state-of-the-art £7000+ 486 PCs... In a nutshell, **PERFECTION** will blow your socks off.

AN EASY WORDSEARCH PROGRAM (2068)
Basil Wentworth

My daughter has interested her 4-year-old son in simple wordsearch programs--the kind where English words are buried in a jumble of nulls, and the solver is given the challenge of circling the hidden words with a pencil. Since he is just beginning to read, she limits the number of words, keeps them simple, and only has them appear in left-to-right order, eliminating the up-and-down, diagonal, and reverse presentations that appear in more complicated puzzles.

The program permits two modes of solution: GO TO 15 gives a hard copy (assuming that a printer is connected, and printer driver software is in place), while GO TO 1 presents the puzzle in a format that can be solved on the screen.

In either case, Lines 110 through 190 are filled with 9 words that make up the puzzle. Each word is not more than 10 letters long, which is a sensible limitation for 4-year-olds, anyway. These words are then listed at the top of the program, in the order in which they appear in the program. I didn't take the trouble to include a "wordwrap" facility, so some of the words may be split at the end of the line.

A word in passing about the "PRINT #P" entry that appears here and there: you may remember that "PRINT #2" give a screen display, whereas "PRINT #3" gives hard copy. P is set equal to 2 if the program is initiated at Line 1, and to 3 if entry is made at Line 15.

The routine in Lines 1100 to 1160 rearranges the selected words in random order, while Lines 1300 to 1410 print the words at random positions in their respective lines, with padding letters (again randomly selected) filling out the lines, both before and after the plain-text word.

If hard copy is selected (by GO TO 15) then the program stops at Line 1420, after a print-out has been generated. On the other hand, if the screen-solve mode is chosen (RUN or GO TO 1), then Lines 1500 to 5000 come into play as follows:

A blinking cursor (black square) is generated by Lines 1550 to 1580. Lines 1560 and 1580 are do-nothing routines that keep the blink rate down to a comfortable value. Lines 1610 to 1640 make the position of the cursor move according to whether UNSHIFTED keys 5 to 8 are pressed. The program can be stopped by pressing "A" or "a".

If "1" (UNSHIFTED) is pressed, then a black square is "deposited", and the cursor is moved along, so that words can be "crossed out", both in the puzzle and in the word list, as they are identified. Or unwanted "cross outs" can be erased by passing over them again with "1" pressed.

LISTING FOR WORDSEARCH

```

10 LET P=2: GO TO 20
15 LET P=3
20 OVER 0
30 CLS
50 GO TO 1000
100 REM WORD CHOICES--USE 9 WORDS, EACH ONE NOT LONGER THAN 10 CHARACTERS
110 LET A$="BASIL": RETURN
120 LET A$="CAROLYN": RETURN
130 LET A$="FATHER": RETURN
140 LET A$="HENDERSON": RETURN
150 LET A$="JENNIFER": RETURN
160 LET A$="JOCELYN": RETURN
170 LET A$="JOHN": RETURN
180 LET A$="JOSEPH": RETURN
190 LET A$="MOTHER": RETURN
1000 REM PRINT WORD LIST
1010 FOR F=1 TO 9
1020 GO SUB (100+10*F)
1030 PRINT #P;A$;" ";
1040 NEXT F
1100 REM SCRAMBLE ORDER
1110 LET B$=""
1120 LET A$="012345678"
1130 LET A=1+INT (RND*LEN A$)
1140 LET B$=B$+A$(A)
1150 LET A$=A$( TO A-1)+A$(A+1 TO )
1160 IF A$<>" " THEN GO TO 1130
1170 PRINT #P
1200 REM DEVELOP MATRIX
1210 FOR F=1 TO 9
1220 GO SUB (110+10*VAL B$(F))
1230 LET C$=""
1240 FOR G=1 TO LEN A$
1250 LET C$=C$+A$(G)+" "
1260 NEXT G
1270 PRINT #P
1300 REM DEVELOP PADDING
1310 LET L=16-LEN C$/2
1320 LET S=RND*L
1330 FOR G=1 TO S
1340 PRINT #P;CHR$ (65+RND*25);" ";
1350 NEXT G
1360 PRINT #P;C$;
1370 FOR G=1 TO L-S
1380 PRINT #P;CHR$ (65+RND*25);" ";
1390 NEXT G
1400 PRINT #P
1410 NEXT F
1420 IF P=3 THEN PRINT : PRINT : STOP

1500 REM SOLVE
1530 OVER 1
1540 LET H=0: LET V=0
1550 PRINT AT V,H;CHR$ 143
1560 FOR F=1 TO 7: NEXT F
1570 PRINT AT V,H;CHR$ 143
1580 FOR F=1 TO 7: NEXT F
1600 LET P=CODE INKEY$
1610 IF P=56 THEN LET H=H+1*(H<31)
1620 IF P=53 THEN LET H=H-1*(H>0)
1630 IF P=54 THEN LET V=V+1*(V<21)
1640 IF P=55 THEN LET V=V-1*(V>0)
1650 IF P=65 OR P=97 THEN STOP
1660 IF P<>49 THEN GO TO 1550
1670 PRINT AT V,H;CHR$ 143
1680 IF H<32 THEN LET H=H+1
1690 IF H>31 THEN LET H=0: LET V=V+1
5000 GO TO 1550
8999 STOP
9000 REM SAVE
9010 SAVE "WRDSRCH" LINE 1
9020 BEEP .3,12: BEEP 1,12
9030 VERIFY "WRDSRCH"
9040 BEEP .3,12: BEEP 1,12
9899 STOP

```


MINI MECHANICAL AFFINITY CATALOG

FALL SPECIALS FROM -MECHANICAL AFFINITY, 513 EAST MAIN ST., PERU, IN 46970. CALL 317-473-8031 TO INQUIRE ABOUT AN ITEM, OR TO ASK THAT AN ITEM BE HELD FOR YOUR CHECK TO ARRIVE. ABOUT HALF OF THE ITEMS ARE ONE ONLY. ASK FOR FRANK OR CAROL. OR CALL 317-291-6002 AND ASK FOR PAUL. ITEMS WILL BE HELD FOR TEN CALENDAR DAYS FOR YOUR CHECK OR MONEY ORDER.

PROGRAMS FOR THE QL

WE HAVE FAR TOO MANY TO LIST HERE SO PLEASE SEND A LARGE SELF ADDRESS ENVELOPE WITH POSTAGE AFFIXED AND WE WILL SEND YOU A LIST OF WHAT WE HAVE AVAILABLE OR CAN GET FOR YOU.

BOOK

QL TECHNICAL GUIDE

15

SERVICES and PARTS

QL Internal ROM board- this allows you to put your favorite ROM version (JM, JS, JSU, MGUS, MGUK, etc.) on an eprom. This will lower power consumption by the QL by about 20% & drop the internal heat by close to 50 degrees fahrenheit. There is also room on the eprom for us to include one of the following programs if you are an owner of one of them: ICE, QFLASH, TKII, SPEED SCREEN. Brd & eprom \$40 -- Board alone \$15 -- Custom eprom alone \$25.

Internal battery backed clock for QL, uses lithium battery, so should be good for far longer than ordinary batteries. This plugs in where the 8032 goes, and the 8032 is then installed in it. \$20 for brd & instructions, or \$26 if we install.

Replacement or backup power supply for the QL, no serious user should be without one (personal opinion). \$15

QL case, contains keys and bare motherboard, no microdrives. Can be used to replace bad case, keytops, or bad motherboard, or even as a start on building your own spare QL. \$20

Keytops for QL \$7.50

Micro Drive Cartridges \$5 each, till supply improves.

MDV labels 3 sheets for \$1.25

SYNCWARE NEWS Vol. 1 \$8

TS2068 dock eprom boards, bare \$10.00

Tom Bents Improved 8K TS1000 ROM \$10.00

Disk Drives, both 3 1/2 and 5 1/4 inquire as to special prices

Improved Spectrum ROMs on eprom \$10.00

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Address correction requested:

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